



Transforming Public Education: Pathway to a Pre-K-12 Future

September 2011



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This report challenges our nation’s policy makers to transform public education by moving from a K-12 to a Pre-K-12 system. This vision is grounded in rigorous research and informed by interviews with education experts, as well as lessons from Pew’s decade-long initiative to advance high-quality pre-kindergarten for all three and four year olds.

The report also reflects work by leading scholars and institutions to identify the knowledge and skills students need to succeed in school and the teaching practices that most effectively develop them. Together, these analyses and perspectives form a compelling case for why America’s education system must start earlier, with pre-k, to deliver the results that children, parents and taxpayers deserve.

Table of Contents

2	Introduction	24	Interviewees
6	Envisioning the Future of Pre-K-12 Education	25	Sidebar Endnotes
12	Pathway to the Pre-K-12 Vision	26	Endnotes
23	Conclusion	29	Acknowledgements

Introduction

More than two centuries ago, as he prepared to retire from the presidency, George Washington counseled the young nation to prioritize and advance public education because, he wrote, “In proportion as the structure of a government gives force to public opinion, it is essential that public opinion should be enlightened.”¹ Today, that our public education system is free and open to all children remains one of the great accomplishments of our democracy.

But we did not get here without challenges and change. Many times we have been called upon to transform our educational system and move toward greater opportunity, equality and access to what Washington termed “institutions for the general diffusion of knowledge”² and an enriched civic life. As we embark upon the second decade of the 21st century, we must again confront the question of how to fulfill the spirit of Washington’s charge.

The present system’s shortcomings are clear. Our schools first enroll most children at five or six years old, a starting point that reflects historical circumstances

and attitudes rather than scientific evidence about children’s development or their potential to benefit from earlier educational programs. We know now, from more than 50 years of research, that vital learning happens before age five. When schooling starts at kindergarten or first grade, it deprives children of the chance to make the most of this critical period. We also know that, often because of these missed opportunities, our schools are not helping vast numbers of children develop skills they need to succeed in the modern global economy,³ limiting our nation’s ability to compete and prosper.

So we find ourselves at a transformational moment: the chance to set all children on a path to achievement in school, in the workforce and in life by fundamentally reforming our education system to begin with high-quality, voluntary pre-kindergarten. As Kati Haycock, president of the Education Trust, states, “Given where we’re headed as a country, which is toward an education system that’s preparing all kids to be college-ready, ... it means that we can’t waste the early years.”



During the past decade, our national understanding of pre-k has changed considerably. While previously associated with child care and support for working parents, it has been recast, more accurately, as a valuable educational opportunity and a critical part of sustainable, long-term economic development. Securing our future demands this new, broader vision:

To ensure that all children fulfill their potential as individuals and citizens, we must re-imagine public education as a system that begins not with kindergarten, but with quality pre-k, and builds on that foundation to raise performance in later grades.

Although 10 years of smart state investments have brought early learning to more than a million children nationwide,⁴ far too few are getting high-quality pre-k. Where they do, schools, particularly the early elementary grades, still are ill equipped to maximize early gains. Truly reforming our public education system will require that we provide high-quality early learning for every child, and where it is lacking, full-day kindergarten – just as we do for first, second and third grades

– and that we ensure later grades are designed to build upon skills gained in the pre-k years. Without this, our education system will struggle to realize its full potential, no matter what other reforms we pursue.

In the words of Geoffrey Canada, CEO of the Harlem Children’s Zone: “The evidence and the science on this [are] clear that the ... barriers between pre-k education, between kindergarten and elementary education are total artifice ... We’ve got to integrate this whole strategy around our early learning for kids so that we create seamless opportunities for [all] children.”

The time is ripe for this new vision. With local, state and federal budgets constrained, policy makers at every level are demanding that publicly funded programs deliver results and yield returns on taxpayer dollars. Research shows that pre-k is unquestionably an efficient, effective investment. Simultaneously, the national debate around education reform is reaching a critical threshold, particularly with the most significant federal law shaping our schools, the Elementary and Secondary Education Act, due for reauthorization.



Introduction

continued from page 3



The vast body of evidence shows that high-quality pre-k is an essential catalyst for raising school performance. It multiplies the effects of later reforms by narrowing early achievement gaps and ensuring that children are fully prepared to learn and thrive academically, physically, socially and emotionally. This heightened focus on efficacy in public investments combined with a growing call for dramatic, research-based reform creates an ideal moment for states to shift their public education systems from a foundation built for a bygone era to the sturdier cornerstone of quality pre-k for all children.

Wendy Kopp, CEO and Founder, Teach For America

In cases where our kindergarten teachers are getting kids who've had in some cases two years of early education, they're seeing the achievement gap stopped before it ever started.

Realizing this vision will require difficult change within the public education and early childhood communities that view themselves as separate fields with discrete purposes. Teachers at every grade level will have to embrace principles of early education such as attending to children's social and emotional development as well as their cognitive progress. We will need to bridge long-established divides between and among funding streams, educational settings, administrative structures, teacher preparation and licensure systems and learning standards. While some early childhood advocates have begun to recognize that they are, in fact, education advocates, and some school-reform advocates are starting to champion early childhood development, more collaboration and interaction will be needed. Creating a new system built upon quality pre-k will mean incorporating early learning into the way we think, teach, practice, advocate and talk about children and about public education.

Education champions have met similar challenges. Beginning in 2001, Pew and a network of advocates from nearly 40 states and the District of Columbia partnered with policy makers and researchers to increase the availability and quality of publicly funded pre-k programs. We were joined by economists and leaders from the business, law enforcement and K-12 communities to form a powerful coalition that elevated pre-k above partisan battles and brought rigorous research to bear on critical questions of policy, practice and finance. The work led to impressive policy gains in both blue and red states, including a doubling of state funding for pre-k and a rise in enrollment to more than one million children nationwide.⁵

This progress has put the transformation to a Pre-K-12 education system within our nation's reach, and now we must seize that opportunity. If our children are to realize their personal and professional promise, if our country is to continue to boast the creative, adaptable, career-ready populace that has made us the world's leader in innovation and productivity for more than a century, we must accept that K-12 is the past. The future of public education is Pre-K-12.

Pre-K Movement Milestones

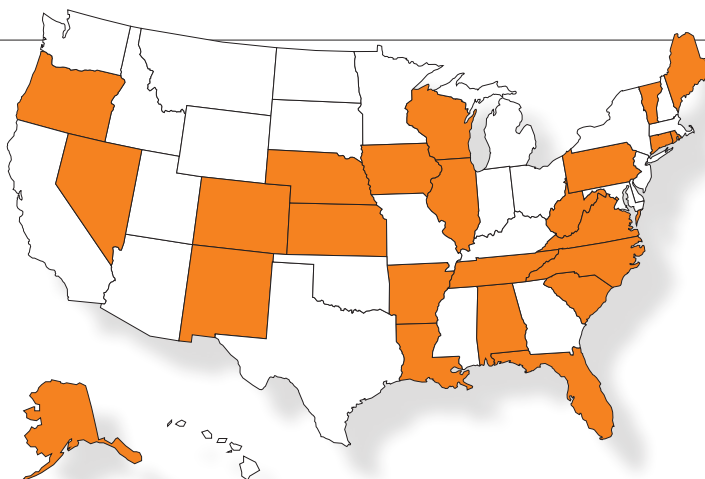
The national movement to advance high-quality pre-k for all three and four year olds has yielded tremendous improvements in both access to and quality of state-funded early learning programs. The many victories won during the past 10 years, include:

- State funding for pre-k more than doubled nationwide to \$5.1 billion in FY2012.ⁱ
- Pre-k access increased from just 700,000 children in 2001 to more than one million today, driven by program growth in many states and expansions of eligibility such as to military and foster children in Texas.ⁱⁱ
- Six states – Florida, Illinois, Iowa, Louisiana, Vermont and West Virginia – and the District of Columbia opened their programs to all four year olds, bringing the total number of pre-k-for-all states to nine plus DC.ⁱⁱⁱ

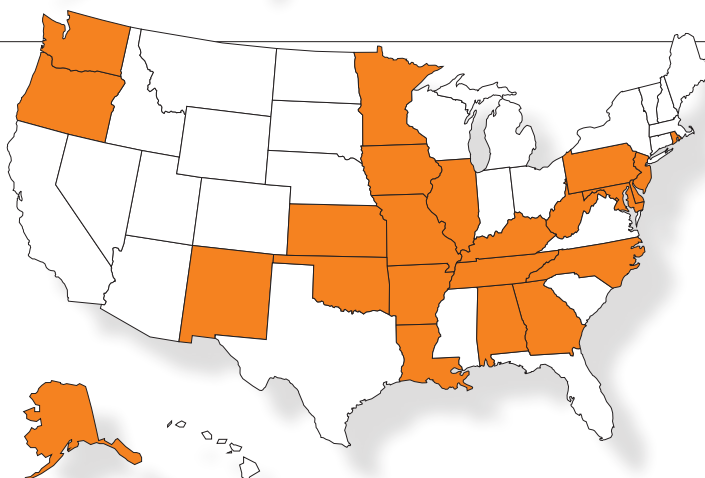
- Three of the 13 states that offered no pre-k in 2001 – Alaska, Florida and Rhode Island – created new programs.^{iv}
- Another seven states created new pre-k programs to supplement, expand and improve their existing services.^v
- The number of states with at least one program meeting eight or more of 10 established benchmarks for pre-k quality rose from five in 2002 to 23 and the District of Columbia in 2010.^{vi}

At the end of 2011, Pew will exit the pre-k arena, confident that the movement for early education is strong, growing and ready to move to the next phase on behalf of our children and our national prosperity.^{vii}

Pre-k is available to more than one million children today, driven by program growth in many states. By 2010, 21 states and the District of Columbia at least doubled their enrollment of three and/or four year olds, and an additional three states offered pre-k for the first time.



The number of states with at least one program meeting eight or more of 10 established benchmarks for pre-k quality reached 23 and the District of Columbia in 2010.



Maps derived from: W. Steven Barnett et al., "The State of Preschool: 2010 State Preschool Yearbook," (New Brunswick: NIEER, Rutgers, The State University of New Jersey, 2011). <http://nieer.org/yearbook>.

Envisioning the Future of Pre-K-12 Education

For decades, policy makers and school reform leaders have been working to “fix” K-12 education at tremendous expense and with limited success. Two common flaws in those efforts have been a major focus on closing student achievement gaps long after they surface and an indifference to pre-k, despite its ability to change the trajectory of children’s learning and to be the catalyst for higher performance throughout school.

Reforms that rely on children playing catch-up are not a long-term strategy for success. Rather, we must redirect our attention and our resources toward efforts to replicate and maximize the impact of proven early education programs and to follow those with complementary reforms. As Nobel Laureate economist James J. Heckman explains, “[S]kill formation is dynamic in nature. Skill begets skill; motivation begets motivation ... The longer society waits to intervene in the life cycle of a disadvantaged child, the more costly it is to remediate disadvantage.”⁶ Early education takes advantage of this process.

Arne Duncan, U.S. Secretary of Education

If we’re serious about closing the achievement gaps, you can’t wait until kindergarten. I think so much of what has hampered education, frankly, is these silos. You have an early childhood silo; you have the K-12 silo, and you have the higher ed silo. People don’t talk; people don’t relate, and I think that isn’t the right thing for young people; that isn’t the right thing for the country.

Yet, early education has remained largely isolated from public education in general and from efforts to transform classrooms, schools and education systems in particular.⁷ Maintaining this wall between the early and later grades limits the effectiveness of both and threatens the return on investment from the billions of public and private dollars that are being spent on increasing academic achievement.

As we move forward to the next phase of our national discourse on school reform, we must begin with the key factors that influence children’s educational success and recognize how we are – or are not – cultivating and building upon foundational skills that help students master academic content, navigate peer interactions and learn to approach problems and complex tasks. Instead of persisting with pre-k as a strategy divorced from other major changes to our public education system, those changes should be informed by what we know from decades of research and knowledge in early learning. The national conversation about how to improve education at the elementary, middle and high school levels must shift to concentrate on the ways that integrating pre-k will allow us to raise early achievement and improve teaching practices to support learning in all grades. It must be about how to advance a Pre-K-12 system that can develop critical skills early and then build upon them in subsequent grades rather than remediating children later or not maximizing early gains. In this way, we can instill in every level of our public education system a focus on ensuring that children cultivate, sustain and apply crucial skills.

Pre-K Improves School and Life Outcomes

The trajectory of children’s schooling experience is set in the early years of life when young brains are building the capacity to learn and to formulate complex ideas. This cognitive and emotional foundation should be solid before age five in order to ensure all children have the chance for higher achievement in every grade. High-quality pre-k reaches kids during this period of vital brain development, teaching them both how to learn and how to love learning while cultivating essential skills they need for success. As Geoffrey Canada puts it, “The science on this is unambiguous.”

Current School Reform Efforts Ignore Pre-K and the Early Grades

In recent years, substantial public and private dollars have been invested in high-profile education reform initiatives, especially those aimed at improving learning standards, teacher preparation or assessments and evaluation. But, as described below, many of these efforts fail to integrate the best practices from pre-k and early learning into their design, and indeed, many ignore the Pre-K-3 grades altogether. This omission limits the impact on student performance and the returns to society. By contrast, just as investments in children yield the greatest benefits when applied to the early years, education reforms that begin with pre-k and incorporate research-based principles from early education can improve teaching and learning in the later years, generating superior outcomes for children and taxpayers.

The Common Core State Standards Initiative

The Common Core State Standards Initiative, or “Common Core,” is a set of reading and math learning standards that “define the knowledge and skills students should have” in order to graduate on time and to be successful in post-secondary education programs.^{viii} The standards start at kindergarten, excluding the critical earlier years. Moreover, the standards define knowledge and skills in only reading and math and do not articulate goals for essential social-emotional, execution-function and approaches-to-learning skills,^{ix} which form the foundation of learning and development and contribute to students’ academic success at every grade.

The Measures of Effective Teaching Project

This project, which helps “educators and policymakers identify and support good teaching by improving the quality of information available about teacher practice,”^x relies in part on analyzing classroom practices that are associated with student learning. Unfortunately, the initiative includes only grades four through nine and, therefore, misses opportunities to gain insights from, and improve instruction in, the Pre-K-3 years, when children develop fundamental skills for later academic achievement.

Race to the Top (2009)

One of the application guidelines for the FY2010 Race to the Top (RTTT) competition required states to include student test scores as part of teacher evaluations.^{xi} In practice, this means using standardized test scores to measure student growth, a policy that effectively excludes teachers in Pre-K-3, in which children are not tested and using child assessments for high-stakes evaluations is much more complicated. As a result, RTTT provides little guidance for how states can evaluate, support and hold accountable early educators, while also failing to value those elements of students’ learning that are less discernible through standardized testing. The 2011 RTTT competition, the Race to the Top – Early Learning Challenge, focuses on the early years, but it does not correct this flaw.

Building Better Teachers

The National Council on Teacher Quality is evaluating about 1,400 teacher-preparation programs around the country.^{xii} Nearly all standards it is using to assess the programs for elementary school teachers are focused primarily on reading and math instruction. No attention is paid to the extent to which these programs equip teachers to develop foundational skills: how to work well with others, focus on a task, think through options for problem solving and generally be more effective learners.



Envisioning the Future of Pre-K-12 Education

continued from page 7

For more than 50 years, researchers have been studying the ways that high-quality early education for three and four year olds affects children both during their school years and throughout their lives. The benefits have been proven repeatedly to be wide-ranging, dramatic and lasting. According to one 2010 analysis of 123 pre-k program evaluations, these programs “provide a real and enduring benefit to children.”⁸ And promising findings from numerous, recent rigorous evaluations of large-scale, publicly funded early education programs reinforce decades of evidence.⁹ Key to the enduring benefits of pre-k is that, by narrowing or preventing achievement gaps early, it prepares children, and therefore also schools, to gain more from educational reforms that target later grades. Children who attend high-quality pre-k programs do better in school from the first day of kindergarten through their post-secondary years. Compared with peers who have not had pre-k, they have higher achievement test scores; they repeat grades far less often; they need less special education; they graduate from high school at substantially higher rates; and they are more likely to attend college.¹⁰

Participation in high-quality early education programs not only improves early literacy and math skills but is also associated with later academic performance in the primary grades and beyond.¹¹ One study found that young children who have higher math skills before kindergarten tend to score higher in future reading and math assessments,¹² and other research indicates that those who have the opportunity to develop strong literacy and language skills are more likely to become proficient readers in the primary grades.¹³ Further, better third-grade reading leads to a much higher likelihood – about 14 percent according to one analysis – of graduating from high school on time.¹⁴ The difference is so pronounced, in fact, that the College Board lists pre-k for all three and four year olds first among its 10 recommendations for increasing college enrollment.¹⁵ Aaron Brenner, head of primary schools at KIPP Houston, goes a step further, noting, “If our early childhood work is not aligned with college readiness standards, then honestly we’re really selling ourselves short.”

These gains are realized, to varying degrees, for all children, regardless of socioeconomic status, ethnicity or race. Low-income and English Language Learners demonstrate the highest gains and greatest reductions in achievement gaps, which yield some of the most substantial improvements in school performance. Importantly, middle-class children, the largest demographic of publicly educated students, also improve significantly in key measures such as early literacy and math when given early learning opportunities.¹⁶

In places where pre-k for all children has been integrated into the public education system, the results have been dramatic. For example, in Kentucky, the Whitley County School District began offering pre-k to all four year olds in 1996. In 2005, it raised the bar for kindergarten exit because such a high number of former pre-k students were satisfying first-grade entry requirements halfway through kindergarten.¹⁷

Notably, the benefits of pre-k endure, translating to success later in life. Children who attend high-quality pre-k have a reduced likelihood of criminal behavior and incarceration, higher chances of being employed as adults, increased lifetime earnings and less reliance on welfare.¹⁸ We know that children are ready for and in need of a developmentally appropriate school experience by age three or four. In our current system, we are defying the research by starting so late.

But we also know that a focus just on reading or on reading and math is not enough. High-quality pre-k has these effects because it builds all the important skills: cognitive, social and emotional. From letter and number recognition, to vocabulary development, to problem solving, to interactions with teachers and peers, pre-k familiarizes children with the world of school.



“Soft” Skills Deliver Hard Results

A hallmark of high-quality pre-k is a focus not only on academic skills such as literacy and math, but also on the “soft” skills that are characteristic of active, independent and engaged learners. These include social-emotional abilities (e.g., working well with peers and in group settings and negotiating conflicts), “approaches to learning” (e.g., persisting through challenges and directing one’s own learning) and executive functions (e.g., focusing on tasks and controlling one’s own feelings, behaviors and thoughts). Such skills are not only important in and of themselves, they also support early reading and math aptitude,¹⁹ predict later academic achievement²⁰ and are associated with adult wellbeing, including health and socioeconomic status.²¹

The connection between soft skills and academic performance operates at a couple of levels. First, children who can collaborate with peers and function in a social environment are more able to learn in a classroom. Second, having the ability to focus, to persist and to control and adjust one’s approach to a problem is critical to supporting what Harvard researchers call “the process (i.e., the *how*) of learning.”²² When children have these skills, teachers and parents can reasonably expect them to learn more effectively.

Further, research has shown that these skills can be explicitly taught and integrated into curricula from pre-k through high school.²³ A recent analysis of more than 200 school-based social-emotional development programs involving more than 270,000 K-12 students found that, on average, children who took part in such curricula increased their academic achievement by 11 percentage points as compared with their nonparticipating peers.²⁴

The pre-k years present a critical opportunity to lay the groundwork for proficiency in these key areas, but they need to be reinforced in the later school years. As David Kirp, Berkeley professor and author of *Kids First*, puts it, “The contribution of pre-k is to recognize the mix between cognitive and non-cognitive outcomes.” To ensure that all classrooms, Pre-K-12, attend to children’s academic proficiency as well as their ability to regulate feelings and behaviors and become strong learners, we must have teachers who can incorporate these lessons into their practice at every grade.

Envisioning the Future of Pre-K-12 Education

continued from page 9

A New Vision of Effective Teaching

Good teaching attends to the full range of children’s developmental needs. The National Council for Accreditation of Teacher Education observed that “children learn best when educators are skilled in applying [child] developmental principles effectively to maximize student academic, social, and emotional development.”²⁵ Embracing pre-k as the starting point of our education system underscores that these teaching skills – prevalent among well-trained early childhood educators – are crucial in all grades and essential to successfully building on the benefits of pre-k.

Early education typically has been more concerned about getting teachers competent in child development and tended to give less attention to academic proficiency. K-12 education has had the opposite approach. Researchers have found that intentional play-based and other child-directed activities disappear when children enter kindergarten and are replaced by teacher-led instruction.²⁶ The reality is that all teachers, Pre-K-12, need an approach to teaching that embraces both. Integrating pre-k into public education supports this objective by redefining effective teaching – and by extension, the assessment and evaluation of quality instruction – according to a more comprehensive set of skills and expertise.

Additionally, an education system founded on pre-k gives teachers in later grades more to work with in the classroom. When children have both the cognitive and social-emotional skills developed through early education, they are more prepared and able to learn, presenting teachers with greater opportunities to reinforce, cultivate and build upon that readiness. Further, student growth is maximized in later years if all educators are well equipped to implement comprehensive teaching methods that support the diverse domains of learning and development.

In a sentiment that echoes the vision presented here, the New America Foundation has called for a redefinition of “the roles of early childhood and elementary grades teachers and principals.”²⁷ Pre-K-12 teaching must be understood as comprehensive, infused with a value on all children’s essential skills: cognitive, social and emotional; knowledge of child development; and a set of classroom practices, informed by those commonly used in high-quality pre-k, that support, enhance and build upon foundational learning.

What Are Intentional, Child-Directed Teaching Practices?

Direct instruction has an important place in classrooms, but those dominated by teacher-centered approaches tend not to maximize learning. Instead, teachers trained to convert child development research into practice know how to complement direct instruction by structuring and facilitating activities in which children have a more dynamic role: creative play, working with manipulatives, independent or small group projects. These teachers are at the ready to provide feedback and to help children connect what they are doing to targeted concepts. Such intentional practices, common in high-quality early education programs, foster social-emotional development and cognitive skills by giving children opportunities to exercise their curiosity and bring their own experiences into the learning environment.^{xiii}

For example, after listening to a story about a shopkeeper, students may engage in an activity in which they assume the role of the manager, staff and customers and carry out interactions similar to those in the book. The teacher can support the activity by providing some guidelines, scenarios and materials in advance. While letting the students bring their own interpretations and creativity into the exercise, the teacher can be on hand to ask probing questions or extend certain concepts. If designed and facilitated well, such an activity develops both cognitive and soft skills.^{xiv}



Mrs.

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Alex C.
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Serigne
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Wendi

Pathway to the Pre-K-12 Vision

States are and have long been the leaders in education, and pre-k is part of that responsibility. Both Pew and the majority of our interviewees believe that, as we move toward a new vision of public education built on a foundation of high-quality pre-k, states must lead the charge for progress and reform. If integration is to occur, it will necessarily arise as part of a more assertive and proactive effort by states to fundamentally change our system in order to improve outcomes for children of all ages. As Ron Haskins, a senior fellow at the Brookings Institution, expressed it, “My kind of vision is that states will be the quarterback.”

Realizing the Pre-K-12 vision will require continued collaboration among a diverse set of stakeholders including education reformers, early childhood experts

Randi Weingarten, President,
American Federation of Teachers

Unless we ensure that early childhood is part of an integrated system, at least an integrated accountability system, it won't have the attention that it needs.

and policy makers at all levels. But it will demand more than merely cooperating better. At every stage of implementation, these stakeholders must be willing to change how they think, talk and operate, especially with respect to entrenched systems and long-held maxims about early childhood, pre-k and public education.

Re-Imagining the Federal Role in a Pre-K-12 System

The federal government has an important role to play in realizing the Pre-K-12 vision, but, like the states, it must be prepared to embrace fundamental policy change. According to Joan Benso, president and CEO of Pennsylvania Partnerships for Children, “For states to really go the next level, there is going to have to be a new state-federal partnership.”

The reauthorization of the Elementary and Secondary Education Act (ESEA) presents an opportunity to reinforce early learning as the foundation of education and to provide sustainable resources and technical assistance that support pre-k-based reforms and give states the flexibility to develop and manage a Pre-K-12 public education system. For example, policy makers can consider rewriting ESEA so that it designates high-quality pre-k as an option for turning around low-performing schools or facilitates Pre-K-3 alignment by funding cross-grade professional development opportunities for teachers and principals.

Further, the Pre-K-12 vision will require the federal government to embrace a new structure for its own systems that support education and low-income children. For example, some states integrate diverse providers, including child care programs, into their pre-k systems and finance such efforts by combining federal child care subsidies with other funding sources. Because regulations for these subsidies make

eligibility contingent on parental employment, a state can find its educational objectives undercut by federal policies. If a parent becomes unemployed, the loss of federal funds can disrupt a child's early learning experience, adding to the family's hardship.

Policies in Head Start, the primary federal early learning program, also should be reviewed. The program was created more than 40 years ago, not as part of an education system, but as an anti-poverty initiative.^{xv} As such, Head Start standards and financing structures often do not align well with public education. Because a Pre-K-12 system would necessarily include Head Start, states will need to have more say over the program's funding, performance measures and data and quality standards.

More recent federal efforts, especially the 2011 Race to the Top – Early Learning Challenge (RTTT-ELC), demonstrate an emerging understanding among federal policy makers of pre-k's vital role in education reform. However, RTTT-ELC and other initiatives are time-limited and available only to selected states. More can and must be done at the federal level to provide sustainable support and incentives for tapping pre-k to reform public education.

Similarly, while moving to a Pre-K-12 education system will require greater access to pre-k, creating fundamental change will take much more than just “adding” a year or two of instruction before kindergarten or changing a regulation here and there. Truly pushing early learning principles up through the grades will require an overhaul of many aspects of education. Each reform will have implications for other parts of the system, with one policy change leading necessarily to another. In this way, a pathway of reforms will emerge, from standards and curricula, to assessments, professional development and teacher evaluations, to structures of governance, funding and administration, and possibly even to the arrangement of schools themselves.

Strategically Expanding Access to Pre-K

Today, despite substantial growth, access to pre-k continues to be severely limited. Expanding the availability of high-quality early education is paramount if a meaningful Pre-K-12 public education system is to be possible. Currently, only three states and the District of Columbia offer pre-k to all four year olds – another six are in the process of implementing pre-k-for-all programs – while 10 states provide no publicly funded pre-k of any kind. Just 40 percent of four year olds and 15 percent of three year olds were enrolled in public early education programs in FY2010.²⁸



Jacqueline Jones, Senior Advisor on Early Learning,
U.S. Department of Education

While we’re making progress, I think we still have a good deal of work ahead to make sure the links to the school are there so that, once a child has a really strong, high-quality early learning experience, they will advance to a high-quality environment in K-3 and beyond.

• Expanding Access and the For-All Goal

Given the research and experience of the past 50 years, which tell us that all three and four year olds benefit from a pre-k experience, as well as the long-standing national commitment to public schools being open to all children, this degree of inequity and such a low level of pre-k availability are no longer acceptable. Michele Palermo, coordinator of early childhood initiatives at the Rhode Island Department of Education, raises an important point about the provision of pre-k, “One of the reasons that it’s easy in some states to cut back pre-k investments when times are tough is this idea that it’s just a program for some kids, not something for all kids. And, we in the trenches are always kind of puzzled ... You wouldn’t just cut out second grade. Why are we just cutting out pre-k? And you wouldn’t just provide second grade to some kids but not all kids.”

As states look for ways to expand the availability of early learning programs, one important strategy will be to build the educational capacity of providers that already serve young children. In particular, most three and four year olds already spend some time in child care settings,²⁹ and more resources should be devoted to helping these environments deliver not only the care that working parents need, but pre-k and other early education services.

Pathway to the Pre-K-12 Vision

continued from page 13

• Incremental Growth

The grim fiscal climate makes dramatic program expansions unlikely and impractical in the near term. States need a realistic plan to increase pre-k access incrementally but consistently and in a manner that allows the larger Pre-K-12 reform agenda to proceed simultaneously. Any effort to grow pre-k, however, should be developed with an eye toward the ultimate goal of ensuring that all three- and four-year-old children have access to high-quality programs.

Many states already have brought innovation and creativity to the problem of expanding access with a range of strategies that can support deliberate, measurable expansion while managing resources prudently. Whether it is using federal Title I funds to support pre-k programs in eligible schools and districts, rolling pre-k funding into the state's school funding formula (as in Iowa and West Virginia) or targeting for-all access first to low-income or poor-performing districts (as New Jersey has done), effective models for enrollment growth already are in place around the country.



States must continue to increase access to high-quality pre-k and ultimately offer early learning to all three and four year olds. Regardless of the pace of that expansion, however, states will need to implement reforms to ensure later grades maximize children's early learning gains. These new policies should be informed by early education principles and designed to support alignment of learning objectives and to embrace better strategies for teacher preparation, classroom assessment and school and educator accountability.

Broadening the Goals of Education

As mentioned earlier, delivering quality early learning opportunities to every child as part of a seamless Pre-K-12 system will require more than just adding more pre-k classrooms. States must fundamentally change how they define, deliver and evaluate children's learning throughout their school careers. While most states include social-emotional and approaches-to-learning abilities as well as early reading, math, science and other cognitive skills in standards that guide their pre-k programs, these policies frequently stop at pre-k and are not carried over into kindergarten and beyond.³⁰ States will need to correct this inconsistency through policy changes that reinforce early education principles in standards for all grades. At the same time, accountability measures and student assessments must be reformed to take the new standards into account, particularly as states shift toward greater emphasis on data collection and child outcomes at all grade levels.

• Aligning State Standards

The disconnect between pre-k and the early elementary learning standards creates a discordant educational experience that limits the extent to which children's academic and non-cognitive gains can be sustained later. States must look at how learning standards and child assessments for all grades can be revised to reflect our better understanding of the skills that inform effective learning. They also must recognize the value of child development to produce a single, cohesive and successive set of objectives from pre-k through high-school graduation.

- **The Common Core**

One immediate and critical opportunity to embed the full range of essential learning throughout public education is through revision of the Common Core standards. In at least one state – Illinois – where social-emotional development was part of existing K-12 learning standards, adopting the Common Core actually narrowed the educational scope and likely will result in shifting resources away from curriculum development and teacher training that focus on those skills.³¹

The Council of Chief State School Officers, the New America Foundation, the National Association of Elementary School Principals (NAESP) and other groups have endorsed broadening K-12 learning standards, generally, to include a comprehensive range of skills.³² NAESP recommends reforming the Common Core for all grades to “include additional child development domains that focus on social, emotional and physical learning.”³³ States must lead this effort to ensure that the high standards for early learning they have built in recent years are reflected in the final Common Core product.

- **Assessments, Outcomes and Accountability**

Revised standards, in turn, must be reflected in assessments of child outcomes. In a few instances, early learning principles already are influencing efforts to reform assessments for other grades. For example, Georgia’s new kindergarten assessment covers developmental areas aligned with those in the existing pre-k assessment³⁴ and includes approaches to learning and social development as well as language arts and math skills.³⁵

A corollary to establishing more comprehensive standards and assessments is that the data are used to determine how education programs can improve and help children reach high standards. “Data are so critical,” Sara Mead, senior associate partner at

Kati Haycock, President, Education Trust

We need more measures that look less at qualifications and more at how much teachers grow their kids.

Bellwether Education Partners, said. “We are going to have to show at the program level that these [elements] are effective.” The early childhood field generally has defined quality in terms of “inputs,” such as class size, quality of classroom materials and teacher education levels. Defining quality by inputs is necessary but no longer sufficient for our nation to build a truly data-driven Pre-K-12 system. Child outcomes in pre-k – in the context of other influences at home, in the community and in the school or center – also must be an important indicator of quality in early education, and teachers should have the necessary training and supports to analyze and use the data.

A Pre-K-12 system needs the resources and expertise to collect reliable and valid data about children’s learning and development in pre-k programs. Only then can stakeholders make sound conclusions about program performance, analyze why some providers may be more successful and implement research-based continuous improvement efforts. When appropriate, policy makers can withdraw funding from persistent low performers that do not improve.

Building this capacity will not be easy, however. David Kirp points to a lack of public awareness of the importance of non-cognitive child outcomes and our ability to measure them. According to Kirp, the challenge lies in “getting people to appreciate that there really are measures you can use [to assess non-cognitive skills], and getting people to appreciate that those attributes probably are at least as important as cognitive outcomes in terms of explaining future life trajectories of these kids.”

Pathway to the Pre-K-12 Vision

continued from page 15

States must be willing to fundamentally change both expectations for children's learning and assessments that evaluate outcomes. At the same time, early childhood education programs operating within the Pre-K-12 system must be subject to outcome-focused measures of performance as are other grades. But by themselves, these efforts cannot transform classroom practice. States must ensure teachers are equipped with the skills and knowledge they need to help children meet new, more robust standards in every grade. Teacher preparation, compensation, licensure and assessment all must be reformed to value early education and to incorporate the principles of foundational learning and child development.

Improving Teacher Training and Evaluation

Developing more comprehensive learning standards and assessments is critical in using early education research and practice to realize a new vision of public schools. These standards cannot be met, however, unless teachers are knowledgeable about child development and understand the classroom practices necessary to maximize prior gains. Leading organizations that study teacher education and effectiveness agree that training and evaluation programs with a narrow focus on academic content and test scores can neither appropriately prepare educators for new Pre-K-12 standards nor gauge the quality of classroom instruction.³⁶

Virginia Embraces Pre-K in Teacher Preparation and Licensure

In 2007, Virginia took a path toward more appropriate training programs and licensure standards for Pre-K-3 educators, requiring that heightened attention be paid to knowledge of young children's educational needs. Two- and four-year institutions of higher education collaborated with the state's stakeholders to develop corresponding programs and to establish agreements among schools of education that give Pre-K-3 teachers a clear and efficient route to obtain their degrees.^{xvi}



To facilitate the dramatic shift in practice demanded by comprehensive Pre-K-12 standards, states will need to implement policies to bring teacher preparation and evaluation in line with the new vision of public education. With smart policy choices, states can align teacher and administrator preparation programs, licensure standards, professional development and evaluations across the grades, especially Pre-K-3, and also value early educators more equitably.

• Comprehensive Teaching Standards

To receive their credentials, all teachers should be required to know how to help children reach rigorous Pre-K-12 standards. For Pre-K-3 teachers in particular, this would include both cognitive and non-cognitive skills and the ability to implement appropriate early elementary teaching practices. Such high expectations are reflected in the recommendations of the National Council for Accreditation of Teacher Education (NCATE) and the core competencies for early elementary teachers outlined by the National Board for Professional Teaching Standards and the National Association for the Education of Young Children.³⁷ Teacher training programs, then, need to reflect these more comprehensive requirements.

Administrator Training Improves Practice in Two States

Like those for teachers, principals' credentialing programs and policies must be changed to reflect a value on foundational learning skills.^{xvii} States can provide guidance to ensure that principals understand and respect Pre-K-3 teachers' unique professional development needs and do not push early educators to use approaches better suited for older students. In 2005, NAESP endorsed more early education training for its members, but its recommendations have not yet been translated into systemic changes in policy or practice.^{xviii}

In North Carolina, a longtime leader in pre-k, a survey found that of 174 responding elementary school principals, 88 percent regretted the lack of early education-relevant training in their administrative preparation programs. The state sought to address this problem and offered these administrators continuing education opportunities focusing on appropriate pre-k instructional practices, assessments, licensing, curriculum and child discipline strategies as well as kindergarten transition issues. Participants in the continuing education program reported much higher confidence in working with early educators and their students, serious disciplinary incidents among pre-k students declined significantly and new, expanded programs are now being offered.^{xix}

Similar efforts have led not only to greater understanding of pre-k best practices but also to stronger linkages with the broader early childhood community. For example, in New Jersey, Advocates for Children of New Jersey, the state's Department of Education Division of Early Childhood Education and the New Jersey Principals and Supervisors Association have created the PreK-3rd Leadership Training Series. This program provides professional development in early childhood for school administrators and includes courses that focus on management and structural changes an administrator can employ to align pre-k to the early grades. According to survey results from a new case study of the program, of the approximately 180 school administrators who took the training two years ago, about 60 percent reported that they are "communicating more with child care and/or Head Start programs in their community since they participated in the training series."^{xx}

• Teacher Training

NCATE has lamented the lack of attention to child development principles among teacher preparation programs and has called on schools of education and state leaders to reform teacher education curricula and practicum experiences so that social-emotional and approaches-to-learning skills are a more prominent part of the required coursework.³⁸ To support a Pre-K-12 system, all training programs must be designed to foster expertise in child development and soft and cognitive skills, as well as an understanding of the long-term trajectory of student learning.

At the same time, training programs for early childhood educators should embrace more robust content on children's early literacy, math and science skills to complement the traditional focus on social-emotional development. Further, for programs that prepare teachers for pre-k and the early elementary grades, states also need to work closely with both two- and four-year institutions of higher education to recruit faculty with expertise in early childhood. According to Ed Condon, director of affiliate relations at the National Head Start Association, "We need to have a continued dialogue with higher education and teacher education so we can look at workforce development in an affordable way."

Pathway to the Pre-K-12 Vision

continued from page 17

• Comprehensive Teacher Evaluations

Any effort to accurately assess teacher performance and reform practice in a manner that is likely to improve student outcomes at all grade levels must examine teachers' ability to support the foundational development that occurs in pre-k and the early grades. Today, the major reform efforts targeted toward improving instructional quality emphasize using student tests that begin in third grade to assess teacher effectiveness. This approach excludes pre-k, kindergarten and the early grades, when testing is not conducted, and as a result, many states are struggling with how to evaluate Pre-K-3 teachers.³⁹

Research suggests that while measuring growth in student test scores may provide some idea about the relative effectiveness of teachers, it tends not to be very helpful in isolating the specific practices responsible for teachers' success or for changing their strategies. To ensure more informative results, teacher evaluations should also employ observational methods that are reliable, valid and predictive of student growth and

staffed by well-trained observers.⁴⁰ To improve teacher assessments, a Pre-K-12 system should turn to promising early learning research, which demonstrates how rigorous evaluations can take into account the full scope of learning for all age groups and suggests ways to improve practice.

For example, researchers at the Center for Advanced Study of Teaching and Learning at the University of Virginia have taken these fundamental early childhood principles and developed assessment tools for pre-k and K-3 teachers, called CLASS, that evaluate educator effectiveness along three dimensions that are predictive of student outcomes.⁴¹ The value and accuracy of this evaluation are borne out in research conducted in thousands of classrooms showing that children in pre-k and early elementary classrooms whose teachers have high CLASS ratings make greater gains in reading, math and social skills.⁴² Evidence also is emerging that CLASS assessments can be adapted to the later grades while maintaining a robust relationship between teacher practice and student outcomes.⁴³

Evaluating and Supporting Teachers from Pre-K and Beyond

Researchers from the University of Virginia have been developing and refining a teacher assessment instrument called CLASS, which examines the comprehensive practices that support student learning and development. At the same time, it identifies strategies and behaviors that teachers can focus on in their professional development. Teachers are assessed on three dimensions:

Emotional support. Create a warm and positive classroom climate for learning and interactions, and demonstrate sensitivity to children's needs and regard for students' perspectives.

Classroom organization. Run the class using behavior management and active learning strategies so that children can be engaged, productive and focused on academic and other developmental goals.

Instructional support. Use high-quality feedback, modeling of language and instructional activities that promote higher-order thinking to help children not only learn facts, but develop sophisticated understanding of concepts and problem-solving strategies.

Further, studies of a similar observational assessment system for all teachers in Cincinnati Public Schools, called the Teacher Evaluation System (TES), show that high TES ratings have strong associations with increased test scores.^{xxi}

Such strategies can guide the design of data-driven teacher assessments to provide even greater insight into teacher performance and classroom practice than evaluations that rely heavily on test score data. They are critical to efforts to enhance teacher assessment and improve classroom practice. As reformers and policy makers seek to build accurate assessments, they must include rigorous observational methods targeting teacher practices that research shows support the full range of children's skills and development. This combination of approaches, founded on proven pre-k practices and reflecting children's developmental trajectory, is essential to compiling a complete picture of student progress, accurately gauging teacher performance and achieving widespread achievement gains.

- **Valuing Early Educators**

States will need to implement policies that reflect the increased value placed on early learning. Systemic supports for pre-k teachers, such as higher levels of compensation in line with other public educators and

relevant, accessible, ongoing professional development are needed to recognize pre-k teachers as part of the larger public education system. Without parity across the structures of teaching, true alignment will be out of reach. As Lisa Guernsey, director of the Early Education Initiative at the New America Foundation, puts it, “Stigma and compensation issues still form a divide between pre-k and the early grades. Prospective teachers may decide not to go into the field of early childhood development because they think that they’ll get a job that pays them less or just isn’t considered as professional.”

To lead a Pre-K-12 transformation, states will need to implement meaningful policy change for licensure standards, compensation, preparation programs and assessments across the Pre-K-3 years and beyond.

But as more and more teachers and students operate according to Pre-K-12 standards, school systems – from funding to administration to coordination between education and other essential child and family services – will need to fundamentally change.



Pathway to the Pre-K-12 Vision

continued from page 19



Re-Imagining Governance Structures

Building a Pre-K-12 public education system that supports comprehensive teaching practices, widespread pre-k access and learning standards founded on early skills will require unified governance structures that effectively streamline and coordinate across all grades, settings and services. In other words, creating a Pre-K-12 system will require more than adding a pre-k program or office to a government agency. Rather, states need to better manage their existing early education systems, reform traditional education structures to embrace pre-k and create formal mechanisms for interaction and alignment.

Reducing the number, complexity and disconnectedness of these structures is vital to creating cohesive systems that facilitate Pre-K-12 alignment, ensure families have access to other crucial support services and meet the needs of all children. A number of states,

including New Jersey and Pennsylvania, have begun to rethink how public education structures, from departments of education to the breakdown of schools across elementary, middle and high school years, should be organized and staffed to support a different way of educating children and of serving families.

• The Early Childhood System

In most states, the early learning system is composed of disparate programs, funding streams and governance structures. This keeps it disconnected from public education and presents enormous and unnecessary challenges to parents and families. As Marquita Davis, former commissioner of the Alabama Department of Children's Affairs, describes it, "Child care is in one department, pre-k is in my department and kindergarten is in another department. And we're trying to align all of these things and make them fit well."

States must ensure that their early learning programs and funding streams are pursuing common goals for quality and outcomes by both linking pre-k to public education and connecting it with programs serving younger children and their families. For example, in Maryland, policy makers consolidated all early childhood services into the state Department of Education, facilitating coordination among these birth-to-five programs and creating a direct connection to kindergarten and the later grades.

Parents of young children tend to rely on multiple public and private services including home visitation, child care and pre-k. At the same time, states typically use a diverse delivery model for pre-k, engaging public schools and for-profit and nonprofit organizations, including child care centers, as early education providers. This system increases families' pre-k choices, makes efficient use of existing facilities and parent-provider relationships and helps streamline the process through which parents obtain services for their children. But when similar types of organizations deliver different services – for instance, when one child care center participates in the state pre-k program but another does not – confusion can arise about which objectives, performance measures and funding levels are appropriate for each center.

An effective state governance structure would help families, policy makers and other stakeholders understand that providers who appear similar may offer distinct services. Such a structure would ensure, for example, that all early education services across settings operate under consistent standards and goals. These must be communicated clearly to providers, policy makers and the public and must inform decisions about how each program is funded and held accountable for results. Early childhood systems that are well organized and that support a clear transition into the education system at the pre-k years can reduce redundancies and provide continuity of services for families. They also can facilitate greater integration of early learning into a new system of public education.

Lois Salisbury, senior advisor for the Children, Families, and Communities Program, David and Lucile Packard Foundation

What we need to address next is the seamless integration of standards, training, workforce development and curriculum from pre-k to third grade.

Deborah Gist, commissioner of education for the State of Rhode Island, notes that states are in the best position to coordinate these funding streams, develop governance structures to meet common goals for quality and outcomes and “decide what [investments are needed], because all states are in different places ... Some may have data systems but not enough access; some may have access but not a data system; and some may have workforce issues and others not.” However, in order for states to create a more coherent early childhood system, they must be granted greater control and flexibility through reforms at the federal level.

Federal policy makers need to expand states' ability to integrate and align standards, funding and governance of the many programs, whether federally or state-created, that provide early education both with one another and with the larger system of public education. In particular, the contradictory standards and regulations of federal funding streams, such as Title I, Head Start and child care subsidies, are important targets. As Harriet Dichter, national director of the First Five Years Fund, puts it, “We have the states trying to be systems leaders. We haven't given them enough authority to do it, and we've created these disconnected funding streams that are not necessarily harmonious with each other in terms of what you're trying to drive for the children.”

One significant barrier is the relationship between Head Start and states' pre-k and early childhood programs. Even though in some states Head Start programs serve between one-fifth and one-third of three or four year olds, the states have little or no

Pathway to the Pre-K-12 Vision

continued from page 19

influence over how Head Start operates. Program funding flows directly from the federal government to local agencies, and data about programs and children are reported directly from providers to the federal government. This practice leaves state-level educators and policy makers out of the loop on questions of student outcomes and program effectiveness.

The lack of information about or authority over Head Start funding, data and standards impedes state efforts to create more coordinated systems for serving young children and their families. To ameliorate this problem, the federal government must rethink how Head Start interacts with states and develop strategies to incorporate Head Start meaningfully into state early childhood systems.

• Pre-K to Third Grade

To integrate pre-k and incorporate early learning principles into the public education system, states will need to transform education departments. New Jersey and Pennsylvania have created divisions within their departments to manage and support Pre-K-3 alignment. This approach reflects the understanding that the cognitive, social and emotional skills developed in pre-k are foundational for children's learning and should inform education broadly. In both states, expanding early learning policies and practices into later grades has yielded a greater focus on instruction dedicated to fostering and sustaining those vital skills after the pre-k years. This strategy also presents a possible model for integration across the entire system.

• Beyond Pre-K-3 Governance

Enhanced Pre-K-3 alignment also should prompt educators and policy makers to ask tough, far-reaching questions about how early learning can improve the structure of education beyond state education departments. Reformers have long been interested in alternatives to traditional elementary, middle and high schools.

Aligning Governance for the Early Grades

New Jersey has long been a leader in pre-k. The state's program has some of the highest standards in the country, receives the necessary support to reach those standards and produces impressive results, both in terms of program quality and child outcomes.^{xxii} But state leaders knew that what was working for three and four year olds could also benefit older children. They began to re-imagine what a state education department should look like. In 2007, New Jersey created a new Division of Early Childhood Education with the explicit responsibility "for preschool through 3rd grade programs [and] for the development, implementation, and alignment of program components with a focus on standards, curricula, and assessment."^{xxiii} In doing so, the state also promoted the previous pre-k director to assistant commissioner for early childhood education, thus giving the division and issue more prominence within the Department of Education and ensuring that early education staff members became part of the agency's early literacy effort.^{xxiv} The benefits of these changes in governance include developing new kindergarten guidelines that are aligned with the state's successful Preschool Program Implementation Guidelines and promoting a consistent educational experience across these grades.^{xxv}

In 2004, Pennsylvania created the Office of Child Development and Early Learning (OCDEL) as part of both the Department of Education and the Department of Public Welfare. OCDEL administers and oversees early learning programs in the state, but because of its connection to the education department it coordinates those programs with K-12 initiatives as well. For example, Pennsylvania's early learning standards are now aligned from infants through second grade. As with pre-k teachers, first- and second-grade teachers are expected to support multiple domains of children's learning and development.^{xxvi} Under OCDEL's leadership, the state also has established the Early Childhood Executive Leadership Institute to help early education and school system leaders develop more coherent birth-to-eight services and practices.^{xxvii}

Conclusion



As we move toward greater continuity among the early grades, we may find that different structures – such as Pre-K-3-grade elementary schools that specialize in the early years – more accurately reflect children’s development and tap into inherent learning processes. Building a system based in early learning demands that all stakeholders be open to change at every level of public education.

To realize the Pre-K-12 vision, many components of the education system must change. States will need to align the goals, standards, funding streams, professional development, governance structures, teacher assessments and training programs and other infrastructure across all grades, schools and systems. Despite the magnitude of the effort, if reform is guided by rigorous research and best practices, then each new policy will support subsequent steps until the transformation of public education is achieved.

Our nation is at a crossroads. Public education that begins with five year olds is a relic. Decades of costly reform efforts targeted at older children have not delivered the results we need. To strengthen our democracy and secure our future, we must once again meet George Washington’s call to promote the institutions of knowledge.⁴⁴ The challenges of the 21st century demand a new vision of public education, a Pre-K-12 vision:

To ensure that all children fulfill their potential as individuals and citizens, we must re-imagine public education as a system that begins, not with kindergarten, but with quality pre-k, and builds on that foundation to raise performance in later grades.

This new system must start with early learning to help all children develop the foundational skills – cognitive, social-emotional and approaches to learning – that they need to thrive. It must equip teachers and schools with the skills and resources necessary to harness and maximize students’ readiness to learn in every grade. And the system should provide a platform on which later reforms and improvements can be founded, multiplying their impacts while reducing their costs. But building a new, highly effective public education system will require leaders from across the traditional education, reform and early childhood communities to change the way they think, talk and work on issues of early childhood, pre-k and school reform.

Pre-K-12 is a vision that can help us realize ambitious goals for our children’s success and our nation’s global leadership. The time for fundamental transformation is now.

Interviewees

W. Steven Barnett, Director, National Institute for Early Education Research

Joan Benso, President and CEO, Pennsylvania Partnerships for Children

Aaron Brenner, Head of Primary Schools, KIPP Houston

Brenda Bushouse, Assistant Professor of Political Science and Public Policy, University of Massachusetts at Amherst; Author of *Universal Preschool*

Geoffrey Canada, President, Harlem Children's Zone

Richard Colvin, Executive Director, Education Sector

Ed Condon, Director of Affiliate Relations, National Head Start Association

Marquita Davis, Director, Alabama Finance Department; former Commissioner, Alabama Department of Children's Affairs

Harriet Dichter, National Director, First Five Years Fund

Arne Duncan, U.S. Secretary of Education

Ellen Frede, Senior Vice President of Education and Research, Acelero Learning

Deborah Gist, Commissioner, Rhode Island Department of Education

Rolf Grafwallner, Assistant State Superintendent for Early Childhood Development, Maryland State Department of Education

Lisa Guernsey, Director of the Early Education Initiative, New America Foundation

Ron Haskins, Co-Director, Brookings Center on Children and Families

Kati Haycock, President, Education Trust

Paul Hirshbiel, Founder, Eden Capital

Jacqueline Jones, Senior Advisor to the Secretary for Early Learning, U.S. Department of Education

Sharon Lynn Kagan, Virginia and Leonard Marx Professor of Early Childhood and Family Policy and Co-Director of the National Center for Children and Families, Teachers College, Columbia University; Professor Adjunct, Yale University's Child Study Center

David Kirp, Professor of Public Policy, University of California at Berkeley; Author of *Kids First* and *The Sandbox Investment*

Wendy Kopp, CEO and Founder, Teach For America

Sara Mead, Senior Associate Partner, Bellwether Education Partners

Michele Palermo, Coordinator of Early Childhood Initiatives, Rhode Island Department of Education

Adele Robinson, Deputy Executive Director, Policy & Public Affairs, National Association for the Education of Young Children

Jason Sabo, Senior Vice President of Public Policy, United Ways of Texas

Lois Salisbury, Director of the Children, Families, and Communities Program, David and Lucile Packard Foundation

Tom Schultz, Project Director for Early Childhood Initiatives, Council of Chief State School Officers

Ralph Smith, Executive Vice President, Annie E. Casey Foundation

Sterling Speirn, President, W. K. Kellogg Foundation

Lisa Ventriss, President, Vermont Business Roundtable

Randi Weingarten, President, American Federation of Teachers

Jamie Woodson, President and Chief Executive Officer, Tennessee SCORE; former Speaker Pro Tempore, Tennessee State Senate

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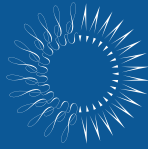
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